

## **REMARKS**

The Specification was objected to because of the inadvertent use of incorrect reference numbers. This mistake has been corrected with the corresponding amendments above. Applicant appreciates the identification of these typographical errors.

Claims 11, 17 and 18 have been objected to for informalities and inconsistencies. Though the Applicant knows of no such rule considering the use of parentheses in a claim as improper, in order to move this case forward the use of the parentheses referring to ICL has been removed and the phrase “inter-corneal lens” has been substituted. Claims 11, 17 and 18 now use the same term inter-corneal lens, and are therefore consistent with one another and the Specification.

Claims 1 – 24 have been rejected as being obvious in view of Oltean either alone or in combination with Knopp. Applicant respectfully traverses such objection.

Oltean at best simply shows general aspects of the present invention, namely the existence of a limbal ring upon illumination of the eye at a particular area. None of the prior art and in particular Oltean discloses the claimed invention of illuminating the limbal ring and capturing an image of that ring and then computing from the recorded image to determine the diameter of the limbus as specifically claimed in independent claim 1. Rather, Oltean is simply concerned with eye tracking and not capturing an

image of the limbal ring and then the further step as claimed of determining a diameter of the limbus. Oltean is completely silent with respect to this diameter determination element of claim 1. Therefore, there can be no suggestion or teaching in Oltean to determine a limbus diameter, nor has the Examiner pointed to any other prior art where the limbus diameter has been determined by a computing device as presently claimed.

The Examiner refers to Oltean, column 5, lines 44 – 57. This reference serves to clearly point out the difference between the presently claimed invention and the teachings of Oltean. Oltean simply teaches taking intensity readings as received by a CCD camera or photo transistor to generate an oscillating analog signal representing the position of the eye. As stated at lines 50 – 53, the annular light pattern measures each light source's intensity from the reflection detected by the photo detector as a reference point to detect movement of the eye. Such movement of the eye in Oltean will then result in a different intensity being detected by the photo detector corresponding to each light source and thereby, detect movement of the eye. No where is there a mention of computing a limbal diameter.

The Examiner also refers to column 10, lines 4 – 23 as asserting the teaching of a computing means to determine the limbus boundary. However, such reference simply is giving a theory of light absorption in the eye, and there is no discussion of computing a limbus boundary.

The discussion at column 13, lines 42 – 65 is particularly the illustrative of the teaching of Oltean. A spot trajectory or it could even be an annular ring of light is adjusted (supposedly manually by a operator, though how the adjustment is made is not clear) until the light spot substantially coincides with the limbus of the eye. Once the light spot coincides with the limbus of the eye, the system takes the light intensity signals at this position and then analyzes subsequent intensity signals to determine if the eye has moved. This is wholly dissimilar to the claimed invention of the present application where an image of the limbal ring is taken in order to determine the diameter of the limbus.

The Examiner asserts that determining a diameter of an object within an image is known in the art and easily accomplished given the distance of the image recorder from the object. However, Oltean makes no such teaching and the Examiner has provided none. In addition, the present application is not claiming to have invented the determination of a diameter of an image, rather the present application applies that technology to determine the diameter of an image to the limbus of the eye which heretofore has been unknown to be determined with a computing device.

As stated in the present application and the description of the related art, it is known to take limbal diameter measurements by various other means, but these measurements have lacked the precision of the present invention. Oltean and the other cited prior art simply lack any teaching or suggestion of the claimed elements of the present invention, and therefore, such claims are in condition for allowance.

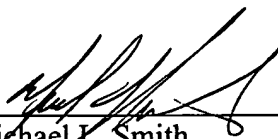
While the above arguments were specifically made with reference to independent claim 1, independent claim 17 is equally applicable to the above arguments and further so because they require the use of first and second laser slits which are alternatively switched in order to record an image of the limbus illuminated by the first and second lamps in order to determine the limbus diameter.

In addition to the above arguments, it is unclear from the teaching of Oltean whether an image of the limbal ring could even be determined from the images taken, since the light sources are preferably positioned so that they coincide with the limbus of the eye, such a position of a light source would result in the CCD camera or other photo detection device being saturated by reflected light and being unable to clearly discern a limbal ring. However, Oltean is unconcerned with this since Oltean is simply taking reflected light intensity measurements rather than needing specific images delineated by the image recording device.

Therefore, it is respectfully submitted that independent claims 1 and 17 are in condition for allowance and the remaining dependent claims are therefore also allowable. The Examiner has made liberal use of official notice and cursory references to elements of the independent and dependent claims being well known in the art or obvious to one who is skilled in the art. The Applicant respectfully objects to such cursory objections and respectfully asserts that dependent claims are also allowable over the art or supposed common knowledge in the art.

It is respectfully submitted that the present application is in condition for allowance, and such allowance is requested at an early date.

Respectfully submitted,



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Dated: June 9, 2003